📘 Study Unit: Operating Budget

🌞 Overview

- The **Operating Budget** includes:
  - **Budgeted Income Statement**
  - All **supporting budgets** leading to it.
- It shows **planned revenues and expenses** for the coming year.
- It focuses on **operating activities** — not capital or financing.

⚙️ Order of Preparation

1️⃣ **Sales Budget** → Foundation for all others
2️⃣ **Production Budget** → Based on sales forecast
3️⃣ **Direct Materials, Direct Labor & Overhead Budgets**
4️⃣ **Ending Inventory & Cost of Goods Sold Budgets**
5️⃣ **Selling & Administrative Expense Budget**
6️⃣ **Budgeted Income Statement**

🧾 1. Sales Budget

📌 Definition

Shows:

- Expected **sales volume (units)**
- **Selling price per unit**
- **Total sales revenue**

Based on:

- Forecasted demand
- Company objectives
- Production capacity

💡 Importance

- **First and most critical budget**
- Basis for all other budgets
- Inaccurate sales → Unrealistic production, purchasing, and labor budgets

🔁 Impact of Forecast Errors

Forecast	Result
Too optimistic	Overproduction, excess inventory, cash issues
Too conservative	Underproduction, stockouts, lost sales

🌎 **Factors Affecting Sales Budget**

External: Economy, consumer trends, competition, market share
Internal: Past sales, pricing, promotions, capacity, resources

⚠️ **Special Notes**

- Realistic estimates = essential
- Sales limited by production capacity
- Credit sales affect **cash budget**, not sales budget

🧠 **Exam Tip**

➡️ *Sales Budget drives the entire operating budget process.*

🌟 **2. Production Budget**

📘 **Purpose**

Determines **units to produce** based on sales & inventory goals.

🧮 **Formula**

Required Production=Budgeted Sales+Desired Ending Inventory−Beginning InventoryRequired\ Production = Budgeted\ Sales + Desired\ Ending\ Inventory - Beginning\ InventoryRequired Production=Budgeted Sales+Desired Ending Inventory−Beginning Inventory

💡 **Key Points**

- Reflects desired ending FG inventory levels
- Production timed to match sales pattern
- Rising material prices → early production

⚙️ **Work-in-Process (WIP)**

- Ignored if stable
- Include if significant change expected

📊 **Importance**

Forms basis for:

1. Direct Materials Usage Budget
2. Direct Materials Purchases Budget

3. Direct Labor Usage Budget
4. Manufacturing Overhead Budget

🧩 2A. Direct Materials Usage Budget

Purpose: Shows quantity & cost of materials needed for production.

Materials Required=Units to be Produced×Material per UnitMaterials\ Required = Units\ to\ be\ Produced \times Material\ per\ UnitMaterials Required=Units to be Produced×Material per Unit

Inputs: From Production Budget & Bill of Materials (BOM).
Includes new projects or expansions.

🧩 2B. Direct Materials Purchases Budget

Purpose: Determines how much raw material to purchase.

Materials to Purchase=Materials Needed+Desired Ending Inventory−Beginning InventoryMaterials\ to\ Purchase = Materials\ Needed + Desired\ Ending\ Inventory - Beginning\ InventoryMaterials to Purchase=Materials Needed+Desired Ending Inventory−Beginning Inventory

Prepared by **Purchasing Dept.** using usage data & cost per unit.

🧩 2C. Direct Labor Usage Budget

Purpose: Calculates total labor hours and costs.

Total DL Cost=Units Produced×Hours per Unit×Rate per HourTotal\ DL\ Cost = Units\ Produced \times Hours\ per\ Unit \times Rate\ per\ HourTotal DL Cost=Units Produced×Hours per Unit×Rate per Hour

Includes:

- Wages
- Payroll taxes
- Benefits (insurance, pensions, etc.)

🧩 2D. Manufacturing Overhead Budget

Purpose: Estimates variable & fixed manufacturing overhead.
Predetermined Overhead Rate:

Rate=Budgeted Total OverheadBudgeted HoursRate = \frac{Budgeted\ Total\ Overhead}{Budgeted\ Hours}Rate=Budgeted HoursBudgeted Total Overhead

Applied Overhead:

Applied Overhead=Rate×Hours per UnitApplied\ Overhead = Rate \times Hours\ per\ UnitApplied Overhead=Rate×Hours per Unit

💡 *Under Absorption Costing (GAAP): DM + DL + OH = Product Costs.*

🔁 **Interrelationship of Budgets**

- ↑ Sales → ↑ Production → ↑ Materials, Labor, and Overhead
- These flow into:
    - Ending Inventory Budget
    - Cost of Goods Manufactured (COGM)
    - Cost of Goods Sold (COGS)

🌞 **4. Budgeted Cost of Goods Manufactured (COGM)**

📘 **Formula**

COGM=(DM Used+DL +OH)+Beginning WIP−Ending WIPCOGM = (DM\ Used + DL\ + OH) + Beginning\ WIP - Ending\ WIPCOGM=(DM Used+DL +OH)+Beginning WIP−Ending WIP

If WIP stable → COGM = Total Manufacturing Costs.

💡 Represents **cost of units completed** during the period.

🌞 **5. Budgeted Cost of Goods Sold (COGS)**

📘 **Formula**

COGS=Beginning FG+COGM−Ending FGCOGS = Beginning\ FG + COGM - Ending\ FGCOGS=Beginning FG+COGM−Ending FG

Shows total cost of goods expected to be sold.

🌞 **6. Nonmanufacturing Budgets**

📁 **Components**

1️⃣ **R&D Budget** — product design, testing
2️⃣ **Selling & Marketing Budget** — ads, commissions, travel
3️⃣ **Administrative Budget** — salaries, legal, accounting
4️⃣ **Other Budgets** — interest, rent, etc.

💡 Split each expense into **variable** and **fixed** for flexible budgeting.

🌞 **7. Budgeted Income Statement**

📘 **Purpose**

Summarizes:

- Sales
- COGS
- Nonmanufacturing expenses
  ➡️ **Shows expected operating & net income**

⚙️ **Steps**

1. Combine results from operating budgets
2. Compute Operating Income
3. Review for profitability and revisions

💡 *Net Income → Retained Earnings in Budgeted Balance Sheet.*

📘 **Transition to Financial Budget**

🧩 **Components**

1. **Capital Expenditure Budget**
2. **Cash Budget**
3. **Budgeted Balance Sheet**
4. **Budgeted Cash Flow Statement**

💰 **Cash Budget**

Definition

Plans **cash inflows & outflows** over short periods.
Prepared **last before financial statements.**

⚖️ **Difference from Cash Flow Statement**

Aspect	**Cash Budget**	**Budgeted Cash Flow Statement**
Classification	Receipts & Payments	Operating, Investing, Financing
Timing	Before financial statements	After income statement
Purpose	Liquidity & cash planning	Reporting cash position

🧩 **Inputs**

- Sales Budget → Cash receipts
- Materials, Labor, Overhead, & Nonmanufacturing → Cash payments
- Capital Expenditure → Outflows

📊 **Format**

Quarter Cash Receipts Disbursements Net Cash Flow Beginning Cash Ending Cash

💡 **Benefits**

- Identifies **cash shortages/surpluses**
- Ensures **liquidity**
- Guides **borrowing or investment** decisions

🧠 **Key Exam Takeaways**

✅ Sequence:
Sales → Production → DM → DL → OH → COGM → COGS → Nonmanufacturing → Income Statement → Cash Budget

✅ Sales Budget = Foundation
✅ Absorption costing → Product cost includes DM, DL, OH
✅ Cash Budget → Prepared **last before statements**
✅ COGM & COGS link production to profitability
✅ Net Income connects Operating & Financial Budgets